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FAX COVER SHEET

	NAME	COMPANY NAME	FACSIMILE NO.
TO:	Examiner Hong Sang	USPTO	1-571-273-8145

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Dear Examiner Sang:

Transmitted herewith is a revised claim set with proposed amendments per our teleconference on Monday, June 28, 2010. We look forward to hearing from you later this week regarding these proposed amendments.

Response once received: Please deliver immediately.

CLIENT# 51284
MATTER# 212664

☐ Original to follow by mail
☑ Original will not follow by mail

CLAIM LIST
U.S. Patent Application Serial No. 10/801,517
Our File: 51284-212664

1. (currently amended) A composition comprising

a phospholipid, wherein the phospholipid is dioleoylphosphatidylserine (DOPS),

an isolated saposin C-related polypeptide, wherein the polypeptide is selected from the group consisting of: (a) a polypeptide having [[an]] the amino acid sequence at least 95 percent identical to the entire length of SEQ ID NO: 2; and (b) a polypeptide having [[an]] the amino acid sequence identical to SEQ ID NO: 2; and

a pharmaceutically acceptable carrier;

wherein the polypeptide retains plasma membrane affinity;

wherein the phospholipid forms a nanovesicle incorporating the polypeptide;

and wherein the nanovesicle incorporating the polypeptide exhibits anti-tumor activity.

2. (canceled)

3. (canceled)

4. (previously presented) The composition of claim 1, wherein the molar ratio of the polypeptide to the phospholipid is in the range from about 1:1 to about 1:50.

5. (previously presented) The composition of claim 1, wherein the molar ratio of the polypeptide to the phospholipid is in the range from about 1:1 to about 1:10.

6. (currently amended) The composition of claim 1 wherein the composition is capable of inducing apoptosis in hyper-proliferating cells, wherein the hyper-proliferating cells are ~~selected from the group consisting of tumor cells and~~ cancer cells.

7. (previously presented) The composition of claim 1, wherein the polypeptide comprises at least 25 contiguous amino acids of SEQ ID NO: 2.

8. (previously presented) The composition of claim 1, wherein the mass ratio of the polypeptide to the phospholipid is in the range from about 15:1 to about 3:10.

9. (withdrawn; currently amended) A method for modulating the distribution of an inner leaflet component in a plasma membrane of a hyper-proliferating cell of a subject comprising administering to the subject a therapeutically effective amount of the composition of claim 1;

wherein the inner leaflet component is phosphatidylserine; and

wherein the hyper-proliferating cell is ~~selected from the group consisting of a tumor cell and~~ a cancer cell.

10. (canceled)

11. (withdrawn; previously presented) The method of claim 9, wherein the phosphatidylserine is dioleoylphosphatidylserine.

12. (withdrawn; previously presented) The method of claim 9, wherein the distribution of the inner leaflet component in the outer leaflet of the plasma membrane is altered.

13. (withdrawn; previously presented) The method of claim 9, wherein the concentration of the inner leaflet component in the outer leaflet is increased.

14. (canceled)

15. (canceled)

16. (withdrawn; previously presented) The method of claim 9, wherein the method promotes cell death of the hyper-proliferating cell.

17. (withdrawn; previously presented) A method of modulating tumor volume in a subject, the method comprising administering a therapeutically effective amount of the composition of claim 1.

18. (withdrawn; currently amended) The method of claim 17, wherein the composition promotes cell death in hyper-proliferating cells, wherein the hyper-proliferating cells are ~~selected from the group consisting of tumor cells and~~ cancer cells.

19. (canceled)

20. (withdrawn; previously presented) The method of claim 18, wherein the cancer cells are selected from the group consisting of sarcoma, neuroblastoma, breast carcinoma, and squamous cell carcinoma cells.

21. (canceled)

22. (canceled)

23. (withdrawn; previously presented) The method of claim 17, wherein the subject is a mammal.

24. (withdrawn; previously presented) The method of claim 23, wherein the

mammal is a human.

25. (withdrawn; previously presented) The method of claim 17, wherein the tumor volume decreases.

26. (withdrawn; previously presented) The method of claim 17, wherein the molar ratio of the polypeptide to the phospholipid is in the range from about 1:1 to about 1:50.

27. (withdrawn; previously presented) The method of claim 26, wherein the molar ratio of the polypeptide to the phospholipid is in the range from about 1:1 to about 1:10.

28. (canceled)

29. (withdrawn; previously presented) A method of treating a cancer in a subject, the method comprising administering a therapeutically effective amount of the composition of claim 1.

30. (canceled)

31. (canceled)

32. (withdrawn; previously presented) The method of claim 29, wherein the molar ratio of the polypeptide to the phospholipid is in the range from about 1:1 to about 1:50.

33. (withdrawn; previously presented) The method of claim 32, wherein the molar ratio of the polypeptide to the phospholipid is in the range from about 1:1 to about 1:10.

34. (canceled)

35. (withdrawn; currently amended) The method of claim 29, wherein the composition promotes cell death in hyper-proliferating cells, wherein the hyper-proliferating cells are ~~selected from the group consisting of tumor cells and~~ cancer cells.

36. (withdrawn; previously presented) The method of claim 35, wherein the cell death occurs through apoptosis.

37. (canceled)

38. (withdrawn; previously presented) The method of claim 35, wherein the cancer cells are selected from the group consisting of sarcoma, neuroblastoma, breast carcinoma, and squamous cell carcinoma cells.

39. (withdrawn; previously presented) The method of claim 29, wherein the subject is a mammal.

40. (withdrawn; previously presented) The method of claim 39, wherein the mammal is a human.

41. (withdrawn; previously presented) The method of claim 29, wherein the composition is administered enterally, parenterally, subcutaneously, intravenously, intraperitoneally, or topically.

42. (withdrawn; previously presented) The method of claim 29, wherein multiple doses of the composition are administered to the subject.

43. (withdrawn; previously presented) The method of claim 29, wherein a single dose of the composition is administered to the subject.

44. (currently amended) An anti-tumor agent comprising a nanovesicle prepared by

(a) preparing a composition that comprises (i) a dried inner leaflet component, wherein the inner leaflet component is a phosphoplipid, wherein the phospholipid is dioleoylphosphatidylserine (DOPS) and (ii) a dried and isolated prosaposin-related polypeptide;

wherein the polypeptide has an amino acid sequence selected from the group consisting of the amino acid sequence set forth in SEQ ID NO: 1, the amino acid sequence that is at least 95 percent identical to the entire length of SEQ ID NO: 1, the amino acid sequence set forth in SEQ ID NO: 2, and the amino acid sequence that is at least 95 percent identical to the entire length of SEQ ID NO:2 and wherein the polypeptide retains plasma-membrane affinity;

wherein the molar ratio of the polypeptide to the dioleoylphosphatidylserine in the composition is in the range from 1:1 to 1:25;

in a pharmaceutically acceptable carrier;

(b) treating the composition to form a nanovesicle;

wherein the nanovesicle formed has a diameter in the range 10 to 800 nm;

and wherein the composition is capable of inducing apoptosis in hyper-proliferating cells, wherein the hyper-proliferating cells are ~~selected from the group consisting of tumor cells and~~ cancer cells.

45. (previously presented) The anti-tumor agent of claim 44, wherein the mass ratio of the polypeptide to the dioleoylphosphatidylserine is approximately 5:1.

46. (previously presented) The anti-tumor agent of claim 44, wherein the mass

ratio of the polypeptide to the dioleoylphosphatidylserine is approximately 15:7.

47. (previously presented) The anti-tumor agent of claim 44, wherein the mass ratio of the polypeptide to the dioleoylphosphatidylserine is in the range from about 15:1 to about 3:10.

48. (previously presented) The anti-tumor agent of claim 44, comprising approximately 10 μM polypeptide and approximately 30 μM dioleoylphosphatidylserine.

49. (previously presented) The anti-tumor agent of claim 44, comprising approximately 10 μM polypeptide and approximately 70 μM dioleoylphosphatidylserine.

50. (currently amended) A composition consisting essentially of an anionic phospholipid nanovesicle consisting of dioleoylphosphatidylserine (DOPS) embedded with a biologically active saposin C-related polypeptide, wherein the polypeptide comprises [[an]] the amino acid sequence that has at least 95% sequence identity to the amino acid sequence of the entire length of SEQ ID NO:2; and a pharmaceutically acceptable carrier; wherein the phospholipid nanovesicle exhibits anti-tumor activity.

51. (canceled)

52. (canceled)

53. (previously presented) The composition of claim 50, wherein the molar ratio of the polypeptide to the phospholipid is in the range from about 1:1 to about 1:50.

54. (previously presented) The composition of claim 50, wherein the molar ratio of the polypeptide to the phospholipid is in the range from about 1:1 to about 1:10.

55. (currently amended) The composition of claim 50 wherein the composition is capable of inducing apoptosis in hyper-proliferating cells upon contact, wherein the hyper-proliferating cells are ~~selected from the group consisting of tumor cells and~~ cancer cells.

56. (canceled)

57. (canceled)

58. (withdrawn; currently amended) A process for the manufacture of a pharmaceutical agent comprising the steps of:

(a) preparing a composition that comprises (i) an inner leaflet component, wherein the inner leaflet component is a phospholipid, wherein the phospholipid is dioleoylphosphatidylserine (DOPS) and (ii) a prosaposin-related polypeptide, wherein the

polypeptide is selected from the group consisting of: (a) a polypeptide having [[an]] the amino acid sequence at least 95 percent identical to the entire length of SEQ ID NO: 2; and (b) a polypeptide having [[an]] the amino acid sequence identical to SEQ ID NO: 2 and wherein the polypeptide retains plasma-membrane affinity;

in a pharmaceutically acceptable carrier;

(b) treating the composition to form a nanovesicle;

wherein the nanovesicle formed exhibits anti-tumor activity.

59. (currently amended) A pharmaceutical agent comprising nanovesicles prepared by

(a) preparing a composition that comprises (i) an inner leaflet component, wherein the inner leaflet component is dioleoylphosphatidylserine (DOPS) and (ii) a prosaposin-related polypeptide;

wherein the polypeptide has an amino acid sequence selected from the group consisting of the amino acid sequence set forth in SEQ ID NO: 1, the amino acid sequence that is at least 95 percent identical to the entire length of SEQ ID NO: 1, the amino acid sequence set forth in SEQ ID NO: 2, and the amino acid sequence that is at least 95 percent identical to the entire length of SEQ ID NO:2 and wherein the polypeptide retains plasma-membrane affinity;

in a pharmaceutically acceptable carrier;

(b) treating the composition to form a nanovesicle;

wherein the nanovesicle formed exhibits anti-tumor activity.

60. (canceled)

61. (canceled)

62. (previously presented) The pharmaceutical agent of claim 59, wherein the molar ratio of the polypeptide to the dioleoylphosphatidylserine (DOPS) is in the range from about 1:1 to about 1:50.

63. (previously presented) The pharmaceutical agent of claim 59, wherein the nanovesicle has a diameter in the range 0.01 to 1 μm.

64. (withdrawn; currently amended) A process for the manufacture of a pharmaceutical agent comprising the steps of:

(a) preparing a composition that comprises (i) a dried inner leaflet component, wherein the inner leaflet component is dioleoylphosphatidylserine and (ii) a dried and isolated prosaposin-related polypeptide, wherein the polypeptide is selected from the group consisting of: (a) a polypeptide having [[an]] the amino acid sequence at least 95 percent identical to the entire length of SEQ ID NO: 2; and (b) a polypeptide having [[an]] the amino acid sequence identical to SEQ ID NO: 2 and wherein the polypeptide retains plasma-membrane affinity;

wherein the molar ratio of the polypeptide to the inner leaflet component in the composition is in the range from 1:1 to 1:25;

in a pharmaceutically acceptable carrier;

(b) treating the composition to form a nanovesicle;

wherein the nanovesicle formed has a diameter in the range 10 to 800 nm and exhibits anti-tumor activity.

65. (currently amended) A pharmaceutical agent comprising nanovesicles prepared by

(a) preparing a composition that comprises (i) a dried inner leaflet component, wherein the inner leaflet component is dioleoylphosphatidylserine (DOPS) and (ii) a dried and isolated prosaposin-related polypeptide;

wherein the polypeptide has an amino acid sequence selected from the group consisting of the amino acid sequence set forth in SEQ ID NO: 1, the amino acid sequence that is at least 95 percent identical to the entire length of SEQ ID NO: 1, the amino acid sequence set forth in SEQ ID NO: 2, and the amino acid sequence that is at least 95 percent identical to the entire length of SEQ ID NO:2 and wherein the polypeptide retains plasma-membrane affinity;

wherein the molar ratio of the polypeptide to the inner leaflet component in the composition is in the range from 1:1 to 1:25;

in a pharmaceutically acceptable carrier;

(b) treating the composition to form a nanovesicle;

wherein the nanovesicle formed has a diameter in the range 10 to 800 nm and exhibits anti-tumor activity.